ICANN Transcription
GNSO New gTLD Subsequent Procedures Working Group
Thursday, 30 April 2020 at 20:00 UTC
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ANDREA GLANDON: Good morning, good afternoon, and good evening. Welcome to the New gTLD Subsequent Procedures PDP meeting being held on Thursday, the 20th of April, 2020, at 20:00 UTC.

In the interest of time, there will be no roll call. Attendance will be taken by the Zoom room. If you are only on then audio bridge, could you please let yourselves be known now?

Thank you. Hearing no names, I would like to remind all participants to please state your name before speaking for transcription purposes and to please keep your phones and microphones on mute when not speaking to avoid any background noise.

With this, I will turn it over to Jeff Neuman. Please begin.

JEFF NEUMAN: Thank you, Andrea. Sorry about that little blip at the first minute there. This is Jeff Neuman. Welcome to the call. We're going to spend the entire time talking about name collisions.

Note: The following is the output resulting from transcribing an audio file into a word/text document. Although the transcription is largely accurate, in some cases may be incomplete or inaccurate due to inaudible passages and grammatical corrections. It is posted as an aid to the original audio file, but should not be treated as an authoritative record.

Before we get started, though, let me just ask two questions. One, there's a person that has a phone number that ends in 412, so if we could just get the identity of that person. Then let me ask to see if there's been any updates to any statements of interest.

Okay. Not seeing any. Not hearing any. If we could just figure out who's phone number that is. I've asked the three Co-Chairs of the Name Collision Analysis Project group (NCAP), as well as anyone from the NCAP group, [if they] wanted to come on to this call and participate. So I think Jim Galvin is on the line. Matt Thomas was also supposed to be here. They are two of the three Co-Chairs. Patrik Faltstrom was invited but gave his apologies due to a holiday where he lives.

What I first want to say before we actually get into the document itself is that this group is obviously a policy group, so, although we delve into some of the technical issues, our role is not to solve or necessarily address the very technical weeds of name collision but rather to talk about the policy aspects and to help give guidance for the subsequent rounds of new gTLDs. Obviously, because this is a largely technical issue, we may get a little bit into the technical issues, but in general, we're trying to address then policy from around the edges.

I also want to mention that Matt Larson is on as well. Matt works at ICANN in OCTO (Office of the Chief Technology Officer). Matt is responsible for, I guess, the liaison and responsible for the Name Collision Analysis Project from OCTO's perspective.

Before we get into the text itself—I'll just make sure and see if Jim is on—if I could ask Jim to give just a couple minutes—because

our work is related to the work that's going on with the NCAP (Name Collision Analysis Project)—and Matt—the two Matts, if they're both on, if they want to jump in as well after Jim—on what the work of the NCAP is: what it's doing now, what its next steps are, and what its timeline is. So, Jim, if you could just do a few minutes—Jim and Matt/Matt—and then we'll get into our issues and the text that we have.

JIM GALVIN: Thanks, Jeff. Jim Galvin from Afilias and, as you said, Co-Chair of NCAP. I'm the most senior co-chair, I suppose, because I've been a co-chair since this project started a little over two years ago. Patrik Faltstrom was one of the co-chairs in the early days and then he had stepped away for a while and then he came back. Matt Thomas, by the way, had offered apologies to me—I don't think he said anything to anyone else—that he was not going to be able to make it today. Matt and Patrik and I all share the chairmanship of this group.

Let me divide my update, I guess, into two parts. Let's talk a little bit about what's been happening and the work product that has been produced. Then Matt Larson may want to add to that. The original NCAP proposal was divided up into three, essentially, major phases. We've been calling them studies—Study 1, Study 2, and Study 3. Study 1 was largely about trying to gather up everything that we knew or had learned or would have available to us to work with with respect to name collisions since the 2012 round.

I'm sure that folks in this group will remember that, just prior to that, when name collisions were essentially "discovered," there was some quick studies that were made and some fairly rapid decisions and procedures that were created. We're now in a state where, in particular, [inaudible] are on the shelf at the moment. Nothing actually permanently decisive has been made about them with respect to the Board. They invented a controlled interruption procedure and then allowed things to go forward based on that and then continued to collect data. So that's Study 1.

What happened is the Board funded a project. In the interest of doing proper management of this project, it became an OCTO project. Matt Larson, as the V.P. of research at OCTO, became the project sponsor.

So a consultant was hired—a technical writer and researcher—to do the legwork and everything else that needed to happen with respect to gathering up what we know and what has happened over the last eight years since the last round. Work Product 1 is probably reasonably characterized with a bibliography of what we know and what's there.

One of the other things that the consultant, as part of the statement of work, was supposed to do was to offer a point of view, a perspective, about Study 2 and Study 3 based on what was learned in looking to the bibliography and how those things are currently characterized in the NCAP project proposal, which has now existed for a little over two years. That work product has actually been put out for public comment. It's gone through that comment stage—one public comment—so those have all been taken on board. A revised report has been created. There's been

some discussion going on the NCAP discussion group list about some of that.

I know that—I'll let Matt Larson say more about this—as a result of that discussion, they're going to wait and let some of that discussion continue on. It's a rather substantive discussion about some of the things that are in Work Product 1 so that Karen has the opportunity—Karen is the contractor—to take that onboard and perhaps incorporate some of this last week or so of discussion here about substantive issues so that she can add that into Work Product 1.

Then what will have to happen along the way—we don't have any particular hard timeline for this—is that the final report, as in typical ICANN process, will go out for a public comment period. Roughly speaking, that'll end the end of June or early July. That'll be handed off to the Board in a package by Matt Larson, and then the Board will ultimately have to make a decision about how to proceed with Study 2 and Study 3 and whether or not to fund the work as proposed or perhaps some modifications—what it wants to do with respect to that. So that's one path and that's one set of things that have happened.

I do want to point out, now as I talk about what we are actually doing now and going forward, is that it's important to understand that the NCAP discussion group is an SSAC working group that was created on behalf of the Board asking SSAC to answer a series of questions. There were actually ten questions across two resolutions. The original NCAP project proposal was created in response to what SSAC thought it needed in order to answer those questions. That work will continue, regardless of what

happens with respect to the Board deciding whether or not to actually provide funding for some contract work for Studies 2 and 3. It's important to keep that in mind. The discussion group is an open and inclusive group. Really, anyone can jump in and be a member of it. You just got to fill out the statement of interest form—standard ICANN procedure—and be part of that discussion. That work will continue.

In fact, what we've been doing these last few week and will continue to do into the future is we have been looking specifically at the Board questions that are there and digging in for ourselves to ask ourselves what it is we know that would be helpful in answering those questions and what we think we need in order to help us answer those questions. The "what we think we need" will feed into our suggestion—the discussion group's suggestion—for a statement of work for the future projects. So that's a decision process that has to happen, and that'll happen separately from whether the discussion group continues to do what it's doing. So the discussion group will either have to make decisions and answer the Board questions based on what it could get access to, or—hopefully or maybe not—we're looking for the opportunity for the Board to fund some additional analysis work with the contractors and some additional data work—getting some real facts and evidence in—that we can use in the NCAP group to help influence the answers that we create to get back to the Board so that, in the future, the overarching goal here is that the Board has some guidance that it can use, some questions that it can use, to evaluate whether or not a given string that is presented for delegation is eligible to be delegated or if it needs to be held back

because it is a collision string (to use the phrase that the Board has used).

That's our overall process. We're already starting that work in digging into that analysis work a bit while we let Word Product 1 finish its little bit of process. We'll see how we're going to manage the request for a statement of work of Study Group 2. We're going to have to see whether the Board is going to go down that path or not and fund it. If that happens, then we'll contribute to the statement of work. Then that'll be something that Matt Larson— sorry, I dropped my phone there—would manage too, presumably. That process will take its own shape.

I think that's it. I did say a lot about process. I hope that that was helpful to people in terms of what we're after. Our timeline is that we are trying to proceed on the timeline that the NCAP project had laid out for itself. So, for the moment, we're on a schedule. Things got delayed in getting started. Ideally, two-and-a-half years ago, we were hoping that we would be coming near a closure at this point, but it was pretty much about 18 months before we got started. And it also turns out we had not really properly built into our schedule the need for going through the procurement process at ICANN for contractors. We had not actually originally imagined that we would be using contractors to do the work. Well, I guess we had, but we hadn't properly accounted for the administrative side of managing all of that. So, unfortunately, the overall schedule is pushed out a bit. The reason why we're starting Study 2 and the analysis work now because we really are trying to move along smartly and efficiently. So we're not serializing things. We're trying to keep things moving in parallel as much as possible so

that we can advantage of the time that we have and be as effective as we can for the community at large.

I can dig into some of the discussion topics if you want, but I think that's mostly what you're looking for. Happy to answer any questions. You might want to see if Matt Larson wants to add anything here first before you take questions. Back to you, Jeff.

JEFF NEUMAN: Thanks, Jim. Yeah, Matt, if you want to add a couple words, please do so from the OCTO perspective.

MATT LARSON: Thanks, Jeff. I think Jim did a really good job summarizing it. I'll just stress that my particular perspective at this point is that the Board in March of this asked Org to complete what we're calling Study 1, the first of the three studies, that SSAC designed. So Org has done that. We've engaged a contractor, as Jim said, and we—OCTO, the org—have told the Board that we'll have that report to them by June 30th. So we're working hard to make that happen. It's going to be tight because we've got another public comment to do.

Right now where we are is that our contractor, whom we've really enjoyed working with and whom I personally think has done a great and very thorough job, has delivered a draft final version of the report. The NCAP discussion group is currently talking about it right now. We have deadline for next Wednesday, the 6th of May, for the group to have resolved any of its feedback. Karen will update the report. We'll open a public comment. By June 30th,

OCTO will send the Study 1 report, along with our own commentary as a cover letter, if you will, to the Board. Then it's out of OCTO's hands, out of Org's hand, and back to the Board's.

One more thing I'll add is that, even though the Board asked Org to do Study 1, the study was originally designed by SSAC, and SSAC has spent a lot of time thinking about this. So I've attempted to be very collaborative with the NCAP discussion group. I don't think it would make any sense had Org just gone off on its own in a vacuum and done all this work and then had the study pop out at the end with no one that had any comment on it. Instead, we've worked very collaboratively with the NCAP discussion group and made Karen, the contractor, available. In my opinion, she's been very responsive to the feedback we've received. So I hope people on the NCAP discussion group feel likewise that we've been collaborative throughout this process. I guess, from my perspective, the next big deliverable will be the Study 1 report sent to the Board at the end of June.

That's all I have. Thank you.

JEFF NEUMAN: Thanks, Matt. One quick question: if you guys—you and Jim—could just explain what is the relationship of the NCAP discussion group to the NCAP admin group and the SSAC and how does that all relate together, just to help everyone understand where that all fits in.

MATT LARSON: I will let Jim take that one.

JIM GALVIN:	Thanks, Matt. I apologize but I should have said what Matt said, if you don't remind my going back for a moment to what Matt just offered at the end of what he was saying. Absolutely Matt Larson and OCTO and Karen and their work was just very cooperative and very collaborative. Certainly, from point of the view of our NCAP admin committee—I'll explain what that is in a moment— we welcomed all of that. It has all worked out very well, and we got a really good work product out of it, as far as I'm concerned, speaking personally, at least, from that. I haven't seen any real objections. I'm not aware of any serious objections from the discussion group at all, so I think this is a success in terms of having embarked on something in unchartered territory.

Speaking of which, let me try to give a top-down picture here about the relationship. Originally, the Board had focused on SSAC and asking it do some questions, and SSAC was going to do this. In an attempt to be responsive to the community, SSAC had made a rather large proposal: "Okay. This is really what it's going to take to get this done. We really want to do this right and do a thorough job." Then there was a fair amount of negotiation that went about this project and how to manage it. There was a point in time when it was just going to be SSAC that was going to have to manage this project. At the time, it was well over a million dollars that was being asked for in the large for running this project and getting it done.

What we ended up doing was to take a much more professional approach to managing this project. That's where the role of OCTO fit into this. The idea was that the money really should stay and

there should be a project sponsor and project management team that is the staff of ICANN that ultimately has responsibility for the money and managing all of that. So that's what the Board had—direct all the money in that way—and then OCTO became the home of the project and project management, in that point of view. So the collaboration relationship that we have is that all of the analysis and the technical work will be done by the discussion group.

One of the obligations that SSAC had agreed to meet in the requirements was that it can't just be this internal closed SSAC group that decides what the answer is here. The Board actually directed quite clearly an open and inclusive process. So we created this discussion group where we're merging all of the usual ICANN processes with the way that SSAC normally runs its work parties and working groups to get things done. So there should be a fair amount of familiarity with the discussion group and the way that it works to the rest of the ICANN community. It ensures that the door is open for folks to come and be a part of that. It's transparent. There's public archive to the mailing list and all of that that goes with it. So the substance of the technical work is being done in the discussion group in full view of the community at large and by the active members there. We're taking advantage of support from contractors which are managed by OCTO. That's that relationship.

Now, one of the things that's important from SSAC's point of view is it ultimately has responsibility for responding to the Board, so we created an admin committee that allows SSAC to maintain some oversight of everything that's going on. OCTO is the project

sponsor. The discussion group is going to do all the substantive technical work. The admin committee consists of Rod and Julie as Chair and Vice-Chair of SSAC, Merike Kaeo, who is the SSAC liaison to the Board, Matt Larson, of course, as the project sponsor, and then the three Co-Chairs. That allows all three parties [to] have some responsibility and authority, if you will, over what's going on. We have our opportunity to coordinate and provide the oversight that's necessary to make sure that this thing continues to proceed in a smooth way.

So that's the NCAP admin committee and its role, the project sponsor, in Matt Larson, and the discussion group, which is the rest of us. I hope that helps. Thanks.

JEFF NEUMAN: Yeah. Thanks, Jim. That's great. I'm watching the notes as they're being typed. There's three NCAP Co-Chairs. I have Jim and Matt on there but should also include Patrik. So thanks.

In the notes—because both you and Matt mentioned Karen and then subcontractor interchangeably—I just put in that Karen is the subcontractor just to get everyone on the same page.

Any questions at this point from anyone in the SubPro group for anyone in the NCAP group before we get started on the issues that we've tackled? Let me just open it up and see if there's any questions. Also, there are members of the NCAP group on here as well, so if anyone wants to add anything that hasn't been said, please do feel like you can raise your hand and add something.

Okay. I am not seeing anything. Well, then I guess everyone understands the role. Lots of important things there. Really, to— oh, I do see one question on the chat, so let me raise that. Oh, Jim answered. So here's the question and the answer. Question to Jim: "Will Study 2 proceed if not funded by ICANN?" Jim is saying, "Yes."

It's also worth noting that we did send around the draft final report to this group—the SubPro group—with the caveat that, when Matt Larson sent it out, it is just in draft form and that the NCAP discussion group, at that point in time when it was forwarded, hadn't even had one conversation on the added sections and was having it and in fact met yesterday for the first conversation.

One of the new added sections which was discussed by the NCAP group yesterday was about Studies 2 and 3. The conclusion or at least the draft conclusion on the independent contractor is that Studies 2 and 3 should not be proceed as designed. Those words—"as designed"—are important. It's not saying that we should never have a Study 2 or 3. It's just saying that, as originally contemplated over two years ago, as Jim said, it may need to have a different set of questions or different set of analysis that goes into Studies 2 and 3. So that's something that I'm sure the discussion group and OCTO will—and already, to some extent, have started—look into. So, while Study 2 may not proceed exactly as it was described in the original paper that was presented to the Board way back when, Study 2 will proceed, whether that's funded by ICANN with work done by subcontractors, or whether that's somehow done with existing resources, is yet to be determined.

Is that accurate, Jim/Matt?

JIM GALVIN: Thanks, Jeff. I gave you a checkmark on the list. I'm not sure if you're looking at that or not, but there you go.

JEFF NEUMAN: Yeah. Thanks. Let me just see if there's any other questions. Thanks for the question, Anne. Great. And I agree with Cheryl that that was very useful. Please do stay on because obviously this topic is of interest to you all. Help us out with anything that we either misstate or may not quite have right.

With that said, why don't we pull up the section that's been drafted. For Jim and Matt and everyone else that may just be from the NCAP group on here that were provided this draft that may not have read it, this follows our usual format, which starts out with a section called Affirmations and Recommendations. The affirmations are to affirm … I hate using the same word in a definition. Basically, we're confirming that what happened either in the policy from last time from 2007/2008, which was implemented in 2012, we should continue or whether something operationally that happened from 2012 or that round, which most of these would fall into, should continue as well. If that's the case, then we say we affirm what happened. If it's not something that happened in the last round or in the policy and it's something new that we feel must happen, we call that a recommendation. Then we have a third category that we call implementation guidance, which is things that we really feel should happen. It's not to take away from the

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fact that we really want it to happen. It's just that we recognize that there may be other ways to implement what we're asking or if what we're asking for we're not 100% sure is feasible. Again, it's not as if they're optional. They're more "This is the way we feel," but there may be other ways to accomplish the same goals that we're trying to get at. Hopefully, that makes sense.

The first thing we have here which is on the screen here is the first affirmation, which is what this all relates to. Name collisions was part of a much bigger section called security and stability. We actually went over the rest of those items on the last call. So we affirm Recommendation 4 of the 2007 GNSO policy, which states that strings must not cause any technical instability.

Then we go on. Usually I'll stop after the recommendations. So this first recommendation that is attached to Rationale #2 states, "ICANN must have ready, prior to the opening of the application submission period, a mechanism to evaluate the risk of name collisions in the new gTLD evaluation process as well as during the transition to delegation phase."

What we're saying there is that, unlike the last time, where all of the application were submitted and they all went through their stability evaluations and it all passed and it wasn't until much later on in the process that the issue of evaluating the name collisions came up. What we're sating with this first one is that ICANN must have a mechanism to evaluate risks during the evaluation process as well as during the delegation phase.

Then we get into some more details through the next affirmation and the implementation guidance. I'll go through a couple of

these, and then we'll take questions, because they're all related to each other. The next affirmation, again, is affirming what happened in 2012. "The working group affirms continued use of the new gTLD collision occurrence management framework unless and until the ICANN Board adopts a new mitigation framework. This includes not changing the controller interruption duration and the required readiness for human life-threatening conditions for currently delegated gTLDs and future new gTLDs." Then there's a citation to where those came from and what those are—what the standard and the duration of controller interruption are.

Let's stop there just to see if there's any questions before I move on to implementation guidance.

We have a quiet group. Okay, Anne. Go ahead.

ANNE AIKMAN-SCALESE: I think the part that I haven't quite understood about this information I whether the working group is saying in this affirmation, "Go ahead and launch a next round if you don't have another mechanism developed by then and just use the old version/framework," because I don't think that necessarily reflects what public comment reflected. I'm not sure by the way this is phrased whether you are stating or the drafters are stating that we should launch the next round. Or maybe you're saying, "Do it staged. Go ahead and accept applications, but don't delegate until …

JEFF NEUMAN: The way I've interpreted this affirmation is it's not giving an opinion as to when the next round occurs. It's just saying that, unless and until the ICANN Board affirms some new kind of framework, this is the framework that should govern. You my argue that it's implying that a next round should occur, regardless of whether something new has is developed. I think that would be a correct implication because, if you remember, our overall recommendation is that there should be subsequent rounds. Period. That's our overall issue. So what this is saying is that, unless something different is adopted, this is the standard.

ANNE AIKMAN-SCALESE: Okay, Jeff. Just a follow up on that is a number of public comments were deferred to the SSAC and deferred to the NCAP. Now we're seeing that those may actually be two different things, or they may end up ultimately being the same thing. I don't know. So I don't know if you're viewing this as the majority view on "Go ahead and launch the next round," or if you're … How are we accounting for the public comment on "Defer to the SSAC/Defer to the NCAP"?

JEFF NEUMAN: We'll get to that in the New Issues section, where we talk about it. Certainly, this was the majority view. Even the people that said, "Wait for the NCAP to complete its work" still agreed that, unless the Board approves some mechanism, this is the status quo, essentially/this is what should apply.

ANNE AIKMAN-SCALESE: Okay. I just have to go back and look at the … I know I was on the subgroup that summarized public comment on this, and I think we did not in fact finish our work. Probably Cheryl can confirm that. But I'd have to go back and look at … I don't necessarily agree that this is the majority view. Thank you.

JEFF NEUMAN: Okay. Just looking at the chat here, Rubens is saying—Rubens, I don't know if you're in a position to speak—"This does reflect the Work Track 4 output," which was the subgroup that originally was talking about this issue, "and the public comments were split even from within a single stakeholder group." Rubens then goes on— then I'll read the other ones—"This is also the status quo. There's no consensus to defer to anything. All public comments/analysis were finished."

Susan states—Susan Payne—"Why would they not be delegated, Anne? 1,200-odd were delegated last round using the old mechanism and it worked fine."

Jim Prendergast states, "Is there an instance where there might be a minority statement?"

Yeah, Jim, absolutely. Any of these could be minority statements. This will be in the version of the draft final report, which again is going out for comment. When we do a consensus call, if there are those that disagree, then, yes, this would be the type of thing that would go in a minority statement.

Let's see. Just reading on here, Cheryl states, "Yes, Anne, there was public comments that raised this, but the analysis work track

did finish its work." Then Anne said, "There was follow-up after Work Track 4 in Subgroup B, and Subgroup B processed the public comment. We did not actually finish that work."

CHERYL LANGDON-ORR: Sorry, Anne. We did finish our work. There was work we could not finish, but we, as Subgroup B, did finish our work. We had to. So all we could do is note that two significant inputters into public comment, two advisory committees of their ICANN structures—ALAC and GAC—held this view. With whatever weight that ends up having, that's the best we could do. But Subgroup B did finish it's work. Thank you. Or, more to the point, our work was finished.

JEFF NEUMAN: Right. Thanks. At the end of the day, if the NCAP group or the SSAC or OCTO or whatever makes recommendations to the Board with something new, then this affirmation would still be correct because it says "unless and until the ICANN Board adopts a new framework." So I don't think that would change the meaning of this affirmation.

Anybody else with any questions/comments before we go to the next one?

Okay. Here's where we start getting into implementation guidance because this is what we'd like to see happen if it is possible. Obviously, we're not 100% sure that this type of thing could be done, but if it can feasibly be accomplished, this is what we would recommend.

The first one is, "ICANN should develop a mechanism or test to determine the name collision risk for any given string. We suggest putting them into three categories: high risk, aggravated risk, and low risk. High-risk strings should not be allowed to be applied for, if possible, or delegated. An aggravated risk string should require the inclusion of a specific name collision mitigation framework."

The second one—then we'll come back on the comments on each of these—is, "To the extent possible, ICANN should seek to identify high-risk strings in advance of the opening of the application submission period"—we should probably capitalize "application submission period" because it refers to a specific definition term that we use elsewhere in the report—"which should constitute a "Do not apply" list. ICANN should also seek to identify aggravated strings in advance, which would be expected to require a specific name collision mitigation framework. However, all applied-for strings should be subject to a DNS stability evaluation to determine whether they represent a high, aggravated, or low risk of name collision."

The third one—the final one—is: "If controlled interruption for a specific label, usually a second-level domain, is found to cause disruption, ICANN may decide to allow controlled interruption to be disabled for that label while the disruption is fixed, provided that the minimum controlled interruption period is still applied to that label." In other words, if there is a problem that's identified during controlled interruption, ICANN would have the right to stop the ticking of the clock, essentially, on controller interruption, at the very least for that one label, to figure out how to fix that issue

and then start the clock again for that label once the issue is worked out.

I don't want to put anyone on the spot here, but … Also, if anyone from the NCAP group wants to make any comments on these, please do. Again, the reason these are implementation guidance is because these are things that we would really like to happen. I'm not 100% of the feasibility. To the extent you all can possibly add some comments to whether something like this is feasible, whether this is some of the work the NCAP is trying to do, maybe to just go into a little bit of the overlap might help [as well].

Jim? Good. Thanks. I appreciate it. Go ahead.

JIM GALVIN: Thanks. I guess my own perspective, as someone who has been around this NCAP stuff a long time, is that I would hope that a version of this comes out of NCAP and that this is the role of NCAP: to … The phrase that is used here is, "Seek to identify high-risk strings." I don't imagine that NCAP is going to create a list of strings—an actual list of "These strings can't happen"—and I don't imagine that ICANN Org would actually create a list of "These strings can't happen."

What I would expect and what I hope comes out of the NCAP work is a set of questions that are going to ask each one about a particular criterion that some data can be gathered that questions on, and the Board will evaluate that data in deciding whether or not to delegate. I would expect that the community at large—you'll know what those questions are in advance—will also be able to go

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get that data and put it together and make an assessment for yourself before delegation, before application, during application, during the controller interruption testing—all of that stuff. So it might not be a perfectly predictable process, but I would hope is that it would respond to all of this and that all of this doable. This is what I hope the analysis that's going to come out of NCAP will be able to produce that kind of response to this guidance and rationale. If that meets with what this group is expecting, then we're in a good place. I hope you're not expecting literally the phrase "Identify high-risk strings," as in you want an actual list of them. Thanks.

JEFF NEUMAN: Thanks, Jim. Anne, go ahead.

ANNE AIKMAN-SCALESE: I think, with everybody working together, hopefully we can develop the kind of testing mechanism that saves people time and money as a gating mechanism at the beginning of the next round. I think the technical expertise really lies within the SSAC and also among certain members of the discussion group.

I wanted to ask Jim, with regard to SSAC outstanding advice … I had a recollection that the SSAC formally advised the Board not to add new names to the root. That I doesn't mean, I guess, "Don't take out applications," but I think the SSAC advice was on the order of, "Don't add new names to the root until you get this risk more thoroughly analyzed." I'm hoping that Jim can expound a bit on what that formal SSAC advice is.

JIM GALVIN: I'll just jump in. Thanks, Anne. Thanks for the question. To be very precise about SSAC's position, SSAC, up to this point, does not want to be in a position of saying whether or not any particular string should or should not be delegated. I appreciate that … I'm going to wordsmith here a little bit, and that may annoy some people. You kind of get into this stuff. But I want to be careful and fair to all parties. The SSAC position is that we believe that there are security and stability issues that have not been thoroughly studied and understood, and they will exist and will happen, and it is incumbent upon the Board to understand the name collision problem space as thoroughly and as carefully as it can as part of making any decision to delegate. So there's a little of nuance there. I realize the practical effect is what you said, but I want to be really careful: SSAC is not making that decision as to whether or not it should proceed—the decision about any particular string. We're just saying there are issue and you better know what they are before you proceed. That's our advice to you. Thanks.

JEFF NEUMAN: Thanks, Jim. I just want to read the comment from Rubens on the chat, which says, "Expertise in this doesn't reside only within SSAC. ICANN Org, both in technical services and in also OCTO divisions, also has expertise. There's expertise in DNS operators, community, and contractors that ICANN might procure, etc." Right.

Alexander asks the question, "How long do we expect it will take until those rules are developed?"

Jim, I don't know if you are in a position to take a shot at this.

JIM GALVIN: The original timeline that was developed was just over two years. As I recall, I think it was 26th months. I have not actually looked at in a while. The studies were mostly in series but not quite. There was a little bit of overlap in the original schedule that we had laid out, which said 22 months overall. But to be fair, we fully recognize that that was an aggressive schedule. We've always represented it as that. We also recognize that you're dealing with volunteers, as we do with everything in ICANN. So I would like to think that, sometime within the next year or two, we'll get to a pretty good closure point and we'll be pretty darn close if not done. If you want to use an analogy, we are essentially two-and-a-half years into then original proposal, and we are, what, nine months into actual work. So we already spent over a year getting to where we started working. We're nine months in, and we're just getting started on Study 1. So the overall 26 months is a little bit of a slip yet, but we are trying to proceed smartly. So we're not too bad off as compared to certain other PDP groups that shall remain nameless. Thanks.

JEFF NEUMAN: I think, as well, just to add, there's nothing like a deadline that gets people to really hunker down. So my guess is that, if we finish the policy work and then ICANN, let's say, approves the policy work, that would be something that might help all sides finish work. I have confidence that the NCAP work should complete prior to or during the implementation phase of our recommendations. I think,

given the schedule and given what data is out there, to me it seems like it could all happen in parallel and that, if both proceed on their current tracks, they will both meet prior to when the application window would launch anyway. Maybe that's just being optimistic.

JIM GALVIN: I'm not going to comment or judge in any way your crystal ball, Jeff. Thanks.

JEFF NEUMAN: Thanks, Jim. I'm going to take an optimistic view. But in any case, what I would say is there's nothing here to tell us to stop the current work we're doing or even then implementation work that needs to happen, which will take time in and of itself. If and when we get to a point that perhaps, for whatever reason, our work is done, including the implementation prior to the NCAP work, then at that point in time ICANN Org will really decide what to do. But that really shouldn't necessarily be our concern.

Anne is stating that Board passed a resolution to require work in 2017. Yeah, I can confirm that Anne. The questions were contained, I believe, either late November or early December, where the resolution was passed—2017—that asked those questions.

As Jim says, it's important to note, too, that the only recommendation at this point will be an assessment of whether or not to move forward with any other study work. So it's also not a given that Studies 2 and 3 will proceed. Certainly, there's not a

given that it will proceed as designed, nor is there a given of what work will occur after.

Let me go back then to the implementation guidance—the second one—which I think was one of the issues that Jim pointed out, which said it would be our wish to create a Do Not Apply list. Jim is not 100% confident that that's something that would come out of the NCAP work. Even the NCAP work may not produce the Do Not Apply list, the Board could take that criteria, or ICANN Org could take that criteria, and create a Do Not Apply list with the work that's being done—using the criteria that NCAP is, in theory, going to work on.

"Perhaps." Right.

So we could still have this as an implementation guidance, so my question to the group is, do we want to keep this as trying to create a Do Not Apply list, or should we just change this to something that Jim was saying was more likely to be an output of the NCAP, or put that as perhaps an alternative, either or both a Do Not Apply list or the criteria to establish that Do Not Apply list? So let me just open that up to see if we like this wording or want to change it.

Alexander states in the chat … Well, Jim states first that, "Perhaps. Since I don't know exactly what the criteria will be, it's hard to say." Alexander states that, "The cure is worse than the sickness. All we need is a set of rules for how to comply that list. How difficult is that, and how did we do it in 2012?"

Rubens states, "In 2012, there was no list. Each string was evaluated on its merits by the contractors." Right. And in 2012 we used a set of data which I don't think would be appropriate at this point, necessarily, to use.

Jim, go ahead, please.

JIM GALVIN: Thanks, Jeff. Mostly I wanted to make an observation about the difference between the world today and the world in 2012. In 2012, yeah, there was no list, but, in fact, in principle, you had raw data that you could use to look at, so you could make some assessments. The data was credible and fair to use as is. In particular, we're talking about root server data and what queries looked like at the root.

There's one big difference between then and now, and that is, if you're going to use similar criteria—at the moment, it's probably the cornerstone of whatever criteria is used and developed by the NCAP group; whatever stats come out of the root service—one of the things that's important to keep in mind is, today, knowing that that's there, that we have the extra issue of dealing with whether or not the data can be influenced prior to it being gathered and looked at. That's something that the NCAP group has to address and consider. You need those kinds of issues to be talked through and considered and provide some guidance on how to look for that and mitigate against it or at least respond to it if you can detect that its present—that kind of thing. So that's a big difference between then and now in terms of having lists and knowing what they are. Thanks.

JEFF NEUMAN: Thanks, Jim. Just to help to ask a clarifying question on that, do you mean that, in theory, someone could be sending queries to the root now for every word in the dictionary, let's say, and, therefore, if one were to look at root server data, they would see lots of queries to undelegated strings but that's actually a product of manual manipulation as opposed to what we looked at in 2012? We got something that you're referring to as something the NCAP would need to address?

JIM GALVIN: Yes, exactly. You worry about somebody who takes advantage of knowledge of the criteria and tries to set up the data that's going to be used in a way for their benefit and to the detriment of others.

JEFF NEUMAN: Right. Thanks. One thing I want to introduce here, too, is … Is Matt Larson still on the phone or in the conversation? Because I think it was Matt that gave—hey, Matt—a presentation—a couple times, actually; well, at least the one I heard I think was Matt—where they were looking at queries to ICANN's root servers during this COVID-19 quarantine period. Through that, they made some interesting observations of undelegated strings that were receiving lots of queries, among other findings. I don't know if this would put you on then spot, but is there a five-minute version for people about what that was? Then perhaps we can send the slides to this group?

MATT LARSON: Sure. I'm happy to share the slides. I talked about them just this morning. So I'll send that deck. It was to a German ISP association called eco, so it'll have their name on it. Whom should I send those to? Julie Hedlund?

JEFF NEUMAN: Yeah. If you send it to Julie, she'll get it to the group.

MATT LARSON: Okay.

JEFF NEUMAN: Could you just do a real quick five minutes of what it is, and maybe at a high level? Because, remember, most of the people in this group are not as technically savvy. Think of them as me: not as technically as most of you all.

MATT LARSON: Well, sure. The really high-level quick summary is that traffic to our root server is up around 20-25% since mid-March when all the lockdown started. We decided to focus specifically on the four instances of the ICANN root server that are in France and use France as a microcosm for our analysis. So there would be less data to deal with. We see that traffic increase whether we look globally at all the traffic that the ICANN root server receives or just at France.

A couple of things stood out. One is that there is a significant increase in queries for non-existent names for domains ending in

.corp, .home, and .local. We posit that can be explained by people working from home, that … Well, I'll leave out the technical detail. It's not a big stretch to come to this conclusion: if you imagine the patterns of domain name lookups that would happen in an office and then you imagine what happens when you move to a home environment, it is explained by increases in queries to TLDs ending in .corp, .home, and .local.

The other thing was see an increase in queries that are attributable to browsers based on Google Chromium. The biggest browser in that case will be Google Chrome, based on the Google Chromium open source project. In order to determine if the browser is on a network behind a captive portal, like if you're in a coffee shop and you need to first log in or accept terms of conditions or something like that, Chrome wants to know if it's in that position. So what it does is it sends a query for a non-existent TLD between 7 and 15 characters long. It makes a random string and does a query. Depending on the result, it can tell: is it behind a captive portal? Or, if it gets an answer is opposed to a non-existent domain, it knows that it's behind the captive portal. Even before the whole lockdown period started in mid-March, Google Chrome was responsible for approximately one-third of all queries to the root servers—at least to the ICANN-managed root server. That number went up slightly after mid-March. Our hypothesis there is that there's simply more instances of Google Chrome running on the Internet. You can imagine every single device that's in a home being turned on and put into use to use the Internet. I envision parents and children fighting over the old iPhone pulled out of the drawer and the dust blowing of it to have more devices connected to the Internet.

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So, at a high-level, those are our findings.

JEFF NEUMAN: Thanks, Matt. I thought that was really interesting. One could take, in theory, that data and extrapolate whether there's any strings that might be statistically significant or getting a statistically significant amount of queries. Dot-local is one of those that's reserved anyway from delegation. It might even be one of the ones in the IETF list of names that shouldn't be delegated. So that's not one that would even be a risk at this point of being delegated in the next round.

Then there's the two others you mentioned: corp and home. Obviously, we know what condition that's in. It'd all be interesting … Well, let me ask the question. If there's any reason to think that the data from ICANN's root servers would be any different than what you would see at other root servers, or should it be pretty similar?

MATT LARSON: We believe it to be similar. At one point, we had access to queries from three other root servers based on agreements from them. We did some statistical analysis. The really short answer is that we believe that looking at ICANN's root server is statistically equivalent to looking at all the traffic [for] any other root servers.

JEFF NEUMAN: Thanks, Matt. Like I said, it's a really good study that was done—interesting—and it was one that people don't know in advance, so

there couldn't really be any kind of manipulation of that data of any group sending queries to the root during that time period because they didn't know what was going on. But, as Jim said, if you're going to develop criteria, then there's always the risk of groups sending queries to serve their interests. But the data that you got seems to be data that was pretty good data to do some sort of analysis.

Let me just look at the queue here and see if there's anyone else. Oh, Jim, go ahead. Your hand is up.

JIM GALVIN: Thanks, Jeff. I'm going to ask a question based on something that you said, which I hope is not too provocative. You made a comment that, because the IETF has reserved .local, that will never be delegated. I want to challenge that wording a bit and be very, very careful about what that means. The IETF has a special-use list of names. It's not a reserved list of names. It's a special-use list of names, and it has .local on it. ICANN has a process by which it decides what to delegate or not delegate. To the best of my knowledge, there in fact is no rule that says that ICANN can't delegate .local. There's nothing in policy that states that that can't happen because there is no official reserved list that ICANN has that it won't use unless that comes into existence as a result of recommendations coming out here. So I want to be very careful about wording and call that out as maybe something you want to be careful to clarify in the way that you put it in the recommendations coming out of this group. Thanks.

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JEFF NEUMAN:	Thanks, Jim. Yeah, I was short-handing it and being colloquial, but, yes, in another part of this paper, there is a section on names reserved from delegation through this ICANN process. One of those are the special-use domains. The wording there is that you will not be able to apply for these strings that are on that list. So I gave it the shorthand discussion, but the way it's worded right now in the report is much more precise and more towards the way that you were phrasing it. But I didn't do a great job in that shorthand. I hope that helps.

Any other questions? Let me ask another provocative-type question. Is there anything else, Jim or Matt or anyone else, that … Well, actually, no. Before I ask that question, let's scroll down just to go to the … So these are all rationales that we have that support the recommendations that we make. If you go down a little bit more. I just want to go to the New Issues section. Actually, there. This is a good place, too. This is where we note what Anne was talking about in terms of some of the discussions that took place involving the intersection of our group and the NCAP group. What we state here is, "The working group notes that the NCAP has since completed its Study 1"—so, by the time this draft report comes out, it will have been deemed final---"with the following conclusions related …" We basically quote what's currently in there. We'll have to replace that with the final language that's put in there. But we do talk of the connections. That's why we highlighted it here: that may change. So it's more of a placeholder for us.

If you scroll down a little bit more … Keep going … Okay. In the New Issues, this is where, Anne, we note what you had talked

about earlier. "In its deliberations, the working group discussed those comments to the initial report, including from the ALAC, that said the NCAP work should be completed before a new round begins. Subsequent to those deliberations and to gain some clarification from the ICANN Board concerning possible dependencies with the ongoing work of the NCAP, the GNSO Council sent a letter on September 20th, 2019, requesting guidance from the ICANN Board of Directors concerning its views related to dependencies, if any, between the NCAP and the ongoing policy work on the New gTLD Subsequent Procedures PDP. In its response on November 1st, Cherine Chalaby, then-ICANN Chair, noted that the "Board has not sought to establish a new dependency on completion of the PDP work based on commissioning NCAP Study 1, which had not yet started at that time. But, upon completion of Study 1, the Board can determine, in consultation with the community, whether additional NCAP work is necessary and, if so, which elements should be a dependency for any of the future milestones noted in your letter.""

So, Anne, this is where we addressed that conversation. Sorry, you're right, Julie or Steve or whoever is controlling it. Sorry. Scroll down. I missed this paragraph. "Since its deliberations on the comments to the initial report, the working group has continued to discuss the issue of whether the completion of the NCAP studies is a contingency for the working group to complete its work and reviewing the NCAP work as well as the Board's response to GNSO Council. The working group believes that the completion of the NCAP studies and SSAC work are not necessarily a contingency for the PDP Working Group to complete its work, but, as the Board notes, "The Board can determine in consultation with

the community whether additional NCAP work is necessary, and, if so, which elements should be a dependency for any of the other future milestones."

So, Anne, this is where think those comments are placed. So we do note it, but we also note the Board's response.

Anne states, "Thanks, Jeff, for action items. Can we please note a minority statement as to this name collision section?"

Yes. Anne, once you submit a minority statement, then we can note it, but, at this point … Different than what this states, since it's in line with the Board's response, what would your minority statement be? Could you just clarify?

ANNE AIKMAN-SCALESE: Yeah, Jeff. I'm really talking about the whole name collision section. I do want to go back and review the public comment again. I think here you've cited a draft of Study 1 that a lot of questions have been raised about and what was in scope with connection to that draft. In this section, it's not necessarily to say … I think I misstated because, when I said "this section," I just meant the name collision section. I didn't mean specifically this language that you just read. Sorry.

JEFF NEUMAN: Oh, okay.

ANNE AIKMAN-SCALESE: I mean the name collision section.

JEFF NEUMAN: Okay.

ANNE AIKMAN-SCALESE: Thanks.

JEFF NEUMAN: Thanks. Also, just to note, when you said there is a discussion ongoing about certain in-scope items, I don't believe any of those were related to any of the issues we have. I believe the question [on] scope is really related to second-level or the reregistration of second-level names and not is not the kind of things that relate to our work. Just to clarify. So the conclusions of Study 2 and 3—

ANNE AIKMAN-SCALESE: Just a real quick follow-up. I think, also, we don't have any language in here right now based on the fact that Jim has confirmed—others, I think, agree, just as Co-Chairs—that, from the SSAC standpoint, Study 2 will proceed even if ICANN doesn't fund it. So I don't know if our language here accounts for that or not.

Anyway, I think cooperation is definitely the way to go here. I think, in some ways, we're really setting up another one of those standoffs and bottlenecks at the Board level, where we're coming in with statements that actually conflict with prior formal SSAC advice on adding names to the root.

So, in terms of the minority statement, it will probably just emphasize the need for cooperation as opposed to standoff. So that's what I'll be looking for. Thanks.

JEFF NEUMAN: Okay. Thanks. Greg, go ahead.

GREG SHATAN: Thanks. Following up on a couple of points that Anne touched on, I'm wondering why we would still be referring to an old report or an old draft of the first NCAP document, Study 1, and not to the most recent version. It seems that that should be updated, since it's already obsolete, or will be obsolete by the time this is published, in any event. So that should be updated.

Secondly, I think, as Steve Chan noted in the chat, since this is, amazingly enough, still a preliminary report, there's no formal space or role for a minority opinion or a minority statement as such. So I'm perhaps thinking that, if there are other views— because this far from a final version and discusses our discussions and deliberation … I'm wondering if Anne would propose maybe a paragraph or two that expresses a different view which may not be held by herself alone, to say the least. That could be added here to provide some point/counterpoint so that we come in here and not get bogged down with the issue of when and where formal minority statements must be appended, but rather, for this point of view, we can have a broader expression of what is being discussed here. Thanks.

JEFF NEUMAN:	Thanks, Greg. Just to clarify—can you scroll up to the highlighted paragraph?—this paragraph is from the most recent draft. The reason we've highlighted it is because it's from Karen's (the subcontractor's) draft final report. She may or may not change that language for the final one which is due. That's why we have it highlighted: to say that, if and when that does change, then we will change the quote. So this is the most recent version that came out a couple days ago. So just to clarify.
GREG SHATAN:	If I could follow up on that, Jeff, just for a sec, then we really shouldn't say that NCAP has since completed its Study 1 because this is not complete. Indeed, the very paragraph that you've chosen out of all of those things to quote is probably the most controversial paragraph in the entire document and probably the most likely to change or at least for which other views be expressed.

So I think this is quicksand here that we're stepping into. This only appears in the very last draft [of the[draft, so I just caution. I understand the paragraph as a quote. I'm not saying we change the quote. I'm suggesting that quoting this and stating that this is "final" is done. Splitting hairs to say whether the study is done or the report is done? The point is we have a draft document that is not accepted by the NCAP. It's not the NCAP's document. So let's not treat it as anything more than it actually is. I think we're trying to overstate it, it seems to me, to encourage certain results. That's, I think, unfortunate. Thanks. |

JEFF NEUMAN: Greg, the reason we worded it like this is because, by the time we release our draft final report, the NCAP Study 1 will have been completed. So that's why it says "The NCAP has since completed" and that's why we highlighted it. And, as Elaine said, the study has been completed. What may change is the conclusion. If it does, we will substitute whatever the conclusion is here. That's the point. That's why we highlighted it and point it out to everyone: we are cognizant that this might change, but we're also trying to not produce a SubPro draft final report that doesn't reflect the other work that's going on. So, once the NCAP final report comes out, this will be replaced with what actually does come out, which is why we highlighted. We're not trying to hide it in there or anything. So we will change it to whatever it represents.

Go ahead, Anne.

ANNE AIKMAN-SCALESE: Thanks, Jeff. I think then we just need to add that, was a working group, we understand that, even if ICANN doesn't fund Study 2, based on the questions that are posed to the SSAC, Study 2 will proceed. Otherwise, its information is incomplete.

I think I would prefer the approach that we just leave this as a blank until that language is finalized because that's open until next Wednesday in the NCAP group, but we also need to add that SSAC have said that they will be proceeding with Study 2 whether or not it's funded, because they have to answer the Board's questions. So, if we want to be accurate here, let's be fully accurate it. Thanks.

JEFF NEUMAN: Okay. Let me just go through the comments real quick because I think it's important as well. Instead of the "The NCAP since has completed the report," Matt Larson points out that it's really ICANN Org's report, and ICANN Org is responsible for replying to the Board and not the SSAC.

Is that what you're saying, Matt. Sorry. I just scrolled up on me there. Hold on. Yes. So, even though Jim has stated that the SSAC may still look into and do Studies 2 and 3 whether or not it's funded, the Board may not … We'll see what the Board does. We don't know what the Board will or won't do. So I'm not sure what to say. We can't take … I'm trying to think of how to put this.

Cheryl, why don't you go ahead because I'm trying to figure out something else. Cheryl, go ahead.

CHERYL LANGDON-ORR: That's okay. I'm not sure I'm going to save you, Jeff, but I certainly do have something to say on this. Here is what I'm hearing, and here is what my preferences are. It's my preferences as an administrator of a document that is necessarily being progressed to finalization, just to be really clear on what I'm saying and why I'm saying it. I feel that we need to have additional text in here which is in keeping with what we've heard about Study 2 that is accurate as to who owns what.

With that, I think we should make a sidebar note to ensure that our staff liaise with the appropriate people in OCTO and SSAC to get

satisfactory text—short text—drafted that makes this section as complete and accurate as possible.

And I'm going to have to disagree with you as to leaving it as a blank because blanks are a greater risk to not getting back to, in my view, than a highlighted section that says, "Come back and make sure that whatever is highlighted here is in keeping and accurately reflects and quotes whatever is finalized in the adjunct work."

So that's my way forward, and that's certainly what I'll be suggesting as our action items. Jeff, I don't think that has helped you, but maybe you've [taken a deep breath.]

JEFF NEUMAN: Yeah. Thanks. I agree with what you said, Cheryl. I appreciate the fact that Jim has said that his intention, or the NCAP's intention, is to do a Study 2 and 3, but frankly I don't know what would happen if the Board adopted or if the Board said, "No, we don't think a Study 2 and 3 are necessary." I'm not sure what the status would be. And Jim is not speaking for the whole SSAC, but, Jim, go ahead. Please clarify.

JIM GALVIN: I'm thinking through this a little bit because I know that this is confusing. There are multiple relationships going on here between the Board and SSAC. Then there's NCAP and OCTO and all of that. I think maybe this particular line here might be helpful, and that is that there is analysis work to be done in order to produce answers to the Board, and there are two parts to that analysis

work. One part of that analysis work will continue in NCAP regardless of anything else that's going on because NCAP has to produce a response to the Board's questions. So that's one part that will happen.

That analysis will occur based on two things, potentially. At least one thing it will include is what we already know about name collisions: the work that was done in 2012 and a review of the bibliography that was created in Work Product 1. There is an option here that SSAC had originally proposed in the original NCAP proposal. I think it's this terminology that's confusing people. There is an option where there is now additional raw data that SSAC had proposed in the original NCAP project proposal that it wanted to look at again and perhaps ask some additional questions or maybe the same questions and then evaluate those answers as part of the analysis work that the NCAP discussion group is going to do.

So just to try and say that a little more quickly as a summary, there's two parts of analysis for Study 2. One part of the analysis is to really respond to the Board's questions, and that'll happen with whatever we have available. An additional part that is dependent on the Board's funding is the gathering of additional raw data that can be used to feed into that analysis work that has to happen.

So that's the only question with respect to what the Board does. NCAP will continue regardless. It's a question of whether or not we will get additional raw data to work with or not or be told, "You're not going to get that."

Does that help? Thanks.

JEFF NEUMAN: Yeah. Jim, another way I would say it is that Studies 2 and 3 as designed may not occur, but, in either case, the questions that were asked by the Board need to be answered.

JIM GALVIN: That is correct.

JEFF NEUMAN: So you may not do something called Study 2 and Study 3, but you will take a shot at answering the questions that the Board has asked with or without that extra dataset.

JIM GALVIN: Correct.

JEFF NEUMAN: Okay. So hopefully that helps.

Anne states, "No objection, but add the fact that the Board has asked questions that the SSAC must answer and did so by Board resolution."

At this point, is it the SSAC that's responsible to answer the Board's questions, or is it OCTO? Who technically has the responsibility to respond to the Board? Do you know, Jim?

JIM GALVIN:	Both have a responsibility to respond to the Board, but the answer to your question, I believe, is SSAC. Keep in mind that the Board has tasked OCTO with managing Study 1, so OCTO has a responsibility to provide that to the Board. So they are going to do that. That's the June 30th deadline for Study 1 and all of that. SSAC has a responsibility to respond to the Board's set two resolutions, which has got ten questions total. SSAC is executing on that with the NCAP discussion group. Thanks.
JEFF NEUMAN:	Cool. Thanks, Jim. All right.

We are at the bottom of the hour or at the end of the hour-and-a-half. I want to thank Jim and Matt and others that may have listened in from the NCAP group for attending. I think this was a really good, helpful call, at least for me and hopefully for others.

Just to note that our next call is Monday. We're going to release, hopefully by early tomorrow, the next section of our draft final report, which is the topics of auctions and resolution of contention sets—things like that. So we will submit that by no later than early tomorrow. I'm one of the holdups. I apologize. Part of it is my fault. So we will get that out soon. Remember May 4th. That next call is going to be a longer call—a two hour call (120 minutes). So it's some interesting things, some hard topics, but everyone please come prepared.

Thanks, Jim and Matt and everyone else, for coming. Talk to you all next week. Thanks, everyone.

[END OF TRANSCRIPTION]